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COMMENTARY

Cultural Differences in Hand Rehabilitation

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Abstract The purpose of this paper is to compare and contrast Western hand therapy interventions and practices in Chinese hospitals. For the past 2 years, I have been providing hand therapy in two local Chinese hospitals in the more developed eastern part of China. One hospital is a public traditional Chinese hospital and the other a private hospital that integrates a traditional Chinese medicine approach with international methods. Hand therapists take great pride in our profession and constantly strive to improve clinical skills and seek innovative solutions to complex hand injuries. We are regularly challenged with traumatic injuries that require the use of our expertise, creativity, and problem-solving skills in order to enable clients to re-engage in their life roles and occupations. The opportunity to practice in different cultural settings generates a sense of excitement, adventure, challenges, and drama and requires a deep commitment to the practice of hand rehabilitation.

My work journey in China

My career experiences with nursing and massage therapy in Sweden, occupational therapy training in Canada, and advanced degree studies and work in occupational therapy practice in the United States have influenced my perspective as a foreigner in a Chinese clinical setting; I worked through several stages before I was comfortable in my role as a therapist, educator, leader, and researcher. Initially, I was excited about starting a new job in a different culture, to share my knowledge and learn new skills. At the same time, the energy and stamina required to cope with a new and challenging situation could not be sustained indefinitely (Wells, 2005, pp. 31—41).

I experienced confusion, frustration, and self-doubt, which led to a negative perception of the Chinese culture (Davis, 1999). "Push forward to get your share" is a motto that reflects a required adaptation of the Chinese people in response to population intensities, history, and cultural backgrounds; Chinese individuals have had to make sure they get their share by trying to be "first in line." This makes coordination of treatment difficult. Patients often arrive in clinics, without an appointment, to request treatment; it is not uncommon for them to join a treatment session of another patient, ask questions, and even offer suggestions. The scope of treatments in China is so immense that European- and American-style bureaucracy and privacy requirements (Health Information Portability and Accountability Act) might not work sufficiently in China and are therefore not developed to the same degree as in

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other countries (Betacourt, Green, Carrillo, & Ananeh-Firempong, 2003). For example, in my previous job there were five hand surgeons and five hand therapists. In one of the Chinese hospitals the equivalent would be 45 hand surgeons and 5 hand therapists.

The negative feelings and confusion that I initially experienced made me determined to overcome and improve; I became more aware of what therapists, doctors, relatives, and patients were doing and the rationale behind certain behaviors. I was able to accept the similarities and the differences, and the good and the bad between my home culture and the new culture (Davis, 1999). I developed confidence in dealing with new situations and problems, and I began to feel accepted and respected as a colleague rather than a threat to the Chinese hand therapy team.

Skilled compared with nonskilled hand therapy

Physical therapy (PT), occupational therapy (OT), and speech pathology (ST) are relatively new disciplines in the Chinese medical system. Physicians and the public in general do not readily recognize these professions. Because rehabilitation or OT and PT professions are in their beginning stages in China, "therapists" in hand therapy are often nurses or physicians who have little to no formal training in rehabilitation. Some have received training in a single-year general rehabilitation program from the World Health Organization. After this training these individuals trained nurses and physicians in their hospitals (Wong and Tsang, 2010). Proper educational rehabilitation programs in specific disciplines are quickly developing in China.

Education in rehabilitation

A hand therapist's education in China differs from OT or PT schools in the United States. In China there are two schools that offer specific OT/PT degrees in mainland China. In addition, there are many universities where the rehabilitation degree includes training in OT, PT, ST, prosthetist and orthotist (P & O), electrotherapy (ET), and traditional Chinese medicine (TCM) (Wong and Tsang, 2010). The art of massage and the understanding of the human muscular and nervous systems as they relate to the well-being of the soul and body are ancient Chinese therapies captured within TCM. TCM also includes a broader grouping of services that includes rehabilitation-oriented therapies that we consider "alternative" in the Western societies, including acupressure, acupuncture, herbal medicine, infrared light, herbal baths, and steam.

Compared to programs in the United States, China's educational requirements are met in a shorter timeframe (Zhuo, 2005). Most Chinese universities do not differentiate between the OT and PT profession, and the curriculums are more theory-based than clinical practicum. After completing school, therapists learn specific skills and therapy interventions in the hospital. Clinical training is included in the university programs in Western cultures. A hand therapist in the United States usually sees a patient for evaluation, splinting, wound care, exercises, electrical stimulation, and so forth. In China, most patients will have to see an OT, PT, P & O, and an electrotherapist and will use TCM for the same injury; the treatments are overlapping and repetitive.

Levels of therapists are based on experience. After graduating from school the therapist must pass an entrance examination similar to the Scholastic Aptitude Test, or SAT, in the United States; however, they do not need to pass a specific OT or PT certification test. Based on number of years in practice, qualification examinations are available and rated as low, medium, high, and highest. The qualification examinations are based on general rehabilitation covering OT, PT, P & O, ST, ET, and TCM. In contrast to therapists in the United States, Chinese therapists do not need to renew their license, nor are there any requirements for continuing education.

Cultural differences

Personal space and privacy differ in China in comparison with the Western countries. When treating a patient, it is not uncommon to have 10 to 20 people observing. This might include patient's relatives, other clients and their families, nonmedical employees, or even curious onlookers who happen to pass by. As shocking as it is to me, this is normal life to the Chinese people, including the injured patient who does not seem to mind. Despite the lack of privacy, I have been greatly influenced by the critical roles the family members of the patients play in the rehabilitation process. Each patient has several family members who provide food and help with daily chores, and who also take part in the rehabilitation program. According to my work experience in the United States, Canada, and Sweden, many patients are alone in their rehabilitation process.

Another important cultural difference is hand hygiene among medical professionals as well as patients. Based on my observations, therapists and doctors rarely wash their hands before, between, or after patient care. In some cases I have observed therapists using gloves but then neglecting to change gloves prior to working with the next patient.

Clinical interventions in hand therapy

In my past experience, most clients are treated on an outpatient basis. Most patients receive therapy twice a week and will perform additional exercises by themselves at home. This differs from the hospitals in China, where patients are hospitalized for a long period of time. They remain in the surgery ward for several weeks after surgery and thereafter may be admitted to the rehabilitation ward for additional weeks of treatment. Patients therefore receive therapy five to six times per week, twice a day.

Due to the lack of staff, a large number of patients receive only passive treatment in the form of modalities such as paraffin, electrical stimulation, and transcutaneous electrical nerve stimulation. Many patients never receive any skilled treatments in the form of massage, range of motion, joint mobilization, or strengthening exercises from a therapist.

Splint fabrication and pressure garments are made in hand therapy clinics. I have been impressed with the creation of splints despite a lack of availability of proper

tools and splint material. Only a few therapists are trained in splinting technique. Exercises are done using continuous passive motion devices, arm bicycles, pegs, cones, weights, and so forth, but often patients perform these exercises on their own with no supervision. The gym area consists of similar equipment that would be available in the United States, including mat tables, weights, a modality room, and a splinting area.

With TCM, patients receive laser therapy and infrared light treatment to increase circulation and to promote wound healing. Herbal baths are used to remove necrotic tissues. The herbal steam unit looks like a fluidotherapy unit but instead of corn husk and warm air, there is 40°C (or 102°F) of herbal steam that is used to increase circulation and reduce pain. In the United States, hand therapists treat hand wounds by using whirlpool, debridement, and dressing changes. In China, nurses and physicians are responsible for dressing changes.

In both hospitals, acupuncture is performed by doctors trained in TCM. Manual needles are used as well as a combination of needles and electrodes. Acupuncture is used to inhibit muscle contractions, decrease pain, and increase circulation.

Documentation and communication

Compared with my work experience in Western countries, no specific treatment guidelines are used in the Chinese clinics. Most rehabilitation clinics do not have standardized evaluation tools, and therefore many therapists are unaware of the proper use of these tools. As a result, patient progress is not objectively measured and documented in a standardized way. Also, progress notes are not always written and communicated to other disciplines.

In China, the medical professionals differ from those in the United States in regard to documentation of medical charts. In China, patients receiving outpatient therapy keep all medical notes from doctors and therapists along with x-rays and laboratory results. Initially, I thought this was unacceptable, but since then I have changed my mind and see the system as both practical and useful. Patients in the hospital have a chart on the ward that the physician and nurses keep, and therapists keep few therapy notes in the clinic. Therapists in China spend less time on insurance documentation and more time on therapy interventions. In Western countries, administrative red tape often limits actual therapy intervention time.

Exchange of knowledge and experience in hand therapy

My observations and practice in these two hospitals have positively affected my development as a hand therapist. I have been able to share my knowledge in hand therapy and encouraged the clinics in their use of international standardized evaluations; for example, documentation tools, following specific treatment protocols, practical training in splinting, and joint mobilization techniques. We have discussed designs of clinics, how to best operate a rehabilitation clinic, and what needs to be purchased for the best possible care within budget limits. I have given lectures to therapists, physicians, and surgeons in regard to specific diagnoses in the upper extremity and the importance of hand therapy and proper treatment guidelines. We have collaborated on these modern Western guidelines to fit the Chinese culture and traditional lifestyles (Zhuo, 2005).

On a weekly basis, I presented exercise programs and discussed the importance of patient education, hand hygiene, and wound care in addition to participating in rounds with the surgeons and physicians; as a result, I regularly consult on and conduct case studies in both hand therapy and surgery regimens. Regular meetings were scheduled where skills, thoughts, and problem-solving strategies were shared between hand surgeons and therapists.

As a result, I was asked to collaborate on an article describing the development of a progressive flexion splint for the stiff hand for the practice forum section in the *American Journal of Hand Therapy* (Wang, Erlandsson, Rui, and Xu, 2011).

Conclusion

Two years ago, the two hospitals did not use standardized methods to assess patients. Due to a lack of evaluation tools, funding, and knowledge, patients were treated most often based on a therapist's observations rather than on objective measures. Further, proper documentation was missing and there was little communication between hand surgeons and therapists. A lack of therapeutic equipment made exercise sessions redundant and challenging. The clinic footprint of one hospital, along with the layout of the clinic in one hospital, was not organized or designed in an effective or efficient manner; that is, patients were doing exercises in an area close to where splints were made and where therapists were attempting to consult with patients. There was a shortage of staff and patients received less quality of care.

During the past few years, significant changes have been made due to the collaborative efforts of the rehabilitation departments of both hospitals. Standardized measures are now used in many assessments along with appropriate evaluation tools. Some therapeutic equipment has been purchased by the hospitals and some has been fabricated by therapists. Development of appropriate forms for evaluations and progress notes are in place in one hospital and in the beginning stages in the other. Design and layout of the clinics have improved, resulting in more privacy, better organization, and overall improved operational efficiencies and effectiveness. A scheduling system has been implemented in both hospitals whereby patients have assigned appointments instead of showing up when convenient to them. Additional staff has been hired in one hospital, promoting improved continuity of care.

A closer work relationship between hand surgeons and therapists has been developed, resulting in early referrals to hand therapy. There is still much to learn and knowledge to share and exchange, but I have a great feeling of satisfaction with the progress made to date.

I believe that practicing hand therapy in a different country strengthens our profession. It enables us to educate and learn new cultures and to share and learn new skills,

techniques, concepts, and experiences globally among therapists (Wells and Black, 2000). A diversity of skills will promote recovery of upper extremity function and a successful return to daily activities.

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